

What is claimed is:

1. An ink jet recording apparatus comprising:

(a) a nozzle for discharging ink;

(b) a recording head having said nozzle;

5 (c) an ink tank for supplying the ink to said recording head;

(d) a carriage for carrying said recording head;

(e) a motor for driving said carriage;

(f) a flexible electric wire coupled with said recording head for sending

a printing signal to said recording head; and

10 (g) a carriage frame for supporting said carriage and said motor;

wherein said carriage, said motor and said carriage frame are coupled together for installation to and removal from said ink jet recording apparatus as a single unit.

2. An ink jet recording apparatus according to claim 1, further  
15 comprising:

a drive pulley coupled with said motor for transmitting driving force of said

motor;

an idler pulley disposed away from said drive pulley; and

a belt suspended between said drive pulley and said idler pulley, said belt fixed to said carriage for reciprocating said carriage.

5           3.     An ink jet recording apparatus according to claim 1,

wherein a projection projecting in a forming direction of a nozzle surface for discharging the ink of said recording head is formed on said carriage frame.

4.     An ink jet recording apparatus according to claim 1,

wherein said motor and said carriage are disposed on opposite sides of the carriage frame, and a total weight on a carriage side is set less than a weight on a motor side.

10          5.     An ink jet recording apparatus according to claim 1,

wherein said carriage is located between top and bottom position of said carriage frame.

15          6.     An ink jet recording apparatus according to claim 1,

wherein a seated height of said electric wire is set less than a height of the

carriage frame.

7. An ink jet recording apparatus according to claim 1,

wherein a seated height of a feed tube for supplying the ink to said ink tank is set less than a height of one of said carriage and said carriage frame.

5 8. An ink jet recording apparatus according to claim 1,

wherein said electric wire is supported by a feed tube provided between said ink tank and said recording head for supplying the ink to said recording head.

9. An ink jet recording apparatus according to claim 1,

10 wherein a belt tensioner for applying a tension to the belt is mounted to said carriage frame.

10. An ink jet recording apparatus according to claim 1,

wherein a position detecting board for detecting positional information of said carriage and a detecting sensor for detecting a position of said carriage are mounted to said carriage frame.

15 11. An ink jet recording apparatus according to claim 1,

wherein an adjusting lever for adjusting a clearance between said recording

head and a recording medium is mounted to said carriage frame.

12. An ink jet recording apparatus according to claim 1,

wherein a lowest portion of said carriage frame is located lower than said nozzle of said recording head.

5 13. An ink jet recording apparatus according to claim 1,

wherein said integrated component is replaceable.

14. An ink jet recording apparatus comprising:

(a) a nozzle for discharging ink;

(b) a recording head having said nozzle;

10 (c) an ink tank for supplying the ink to said recording head;

(d) a carriage for carrying said recording head;

(e) a carriage-driving device for driving said carriage;

(f) a flexible electric wire coupled with said recording head for sending a printing signal to said recording head; and

15 (g) a carriage frame for supporting said carriage and carriage-driving device,

wherein said carriage, said carriage-driving device, said electric wire and said carriage frame are coupled together for installation to and removal from said ink jet recording apparatus as a single unit.

15. An ink jet recording apparatus comprising:

- 5 (a) a nozzle for discharging ink;
- (b) a recording head having said nozzle;
- (c) an ink tank for supplying the ink to said recording head;
- (d) a carriage for carrying said recording head;
- (e) a carriage-driving device for driving said carriage;
- 10 (f) a flexible electric wire coupled with said recording head for sending a printing signal to said recording head; and
- (g) a carriage frame for supporting said carriage and carriage-driving device,

wherein said electric wire is supported by a feed tube provided between said ink tank and said recording head for supplying the ink to said recording head, and said carriage, said carriage-driving device, said electric wire, said tube and said

carriage frame are coupled together for installation to and removal from said ink jet recording apparatus as a single unit.